OM protein - protein search, using sw model

Run on: August 23, 2007, 12:57:35; Search time 210 Seconds

(without alignments)

27.962 Million cell updates/sec

Title: US-10-531-701-18

Perfect score: 72

Sequence: 1 CSSVTAWTTGCG 12

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2782304 seqs, 489333398 residues

Total number of hits satisfying chosen parameters: 1139688

Minimum DB seq length: 5
Maximum DB seq length: 30

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : A_Geneseq_200701:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*
8: geneseqp2004s:*

9: geneseqp2005s:*

10: geneseqp2006s:*

11: geneseqp2007s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB	ID		Descript	ion
. 1	72	100.0	12	8	AD085937		Ado85937	Cyclic po
2	41	56.9	12	8	ADO85941	•	Ado85941	Cyclic po
3	40	55.6	24	2	AAY09276	,	Aay09276	Antifreez
4	39	54.2	12	8	ADO85940		Ado85940	Cyclic po
5	38	52.8	9	5	AAU92600		Aau92600	PHOR1-F5D
6	38	52.8	9	5	AAU92399		Aau92399	PHOR1-F5D

•						•		•	
						•			
	7	38	52.8	9	5	AAU92809		Aau92809 PHOR1-F5D	
	8	38	52.8	10	5	AAU92956		Aau92956 PHOR1-F5D	•
	9	38	52.8	10	5	AAU92653		Aau92653 PHOR1-F5D	
	10	38	52.8	10	5	AAU92816		Aau92816 PHOR1-F5D	
	11	38	52.8	25	4	AAB75264		Aab75264 Human sec	
	12	37	51.4	9	5	AAU92793		Aau92793 PHOR1-F5D	
•	13	37	51.4	10	5	AAU92959		Aau92959 PHOR1-F5D	
	14	37	51.4	10	5	AAU92838		Aau92838 PHOR1-F5D	
	15	36.5	50.7	18	10	AEJ08867		Aej08867 Phage fd-	
	16	36	50.0	12	9	ADY41213		Ady41213 Human gua	
•	. 17	36	.50.0	12	9	ADY40991		Ady40991 Human gua	
	18 19	36 36	50.0	12	9 9	ADY41037		Ady41037 Human gua	
	20	36	50.0 50.0	12 12	9	AEB80440 AEB80662		Aeb80440 Human gua	
	21.	36	50.0	. 12	9	AEB80486		Aeb80662 Human gua	
	22	36	50.0	12				Aeb80486 Human gua	
	23	36	50.0	12	10			Aek69806 Chymotryp Aek70028 Chymotryp	
	24	36	50.0	12	10	AEK69852	•	Aek69852 Chymotryp	
	25	36	50.0	13	9	ADY41338		Ady41338. Human gua	
	26	36	50.0	13	9	ADY41162		Ady41162 Human gua	
	27	36	50.0	13	9	ADY41468		Ady41468 Human gua	
	28	36	50.0	13	9	AEB80787		Aeb80787 Human gua	
	29	36	50.0	13	9	AEB80917		Aeb80917 Human gua	
	30	36	50.0	13	9	AEB80611		Aeb80611 Human gua	
	31	36	50.0	13	10	AEK70153		Aek70153 Chymotryp	
	32	36	50.0	13	10	AEK70283		Aek70283 Chymotryp	
	33	36	50.0	13	10	AEK69977		Aek69977 Chymotryp	
	34	36	50.0	14	9	ADY41722		Ady41722 Human gua	
	35	36	50.0	14	9	AEB81171		Aeb81171 Human gua	
	36	36	50.0	14	10	AEK70537		Aek70537 Chymotryp	
	37	36	50.0	17	2	AAR06081		Aar06081 Immunorea	
	38	36	50.0	26	6	ABJ19716		Abj19716 Human sec	
	39	36	50.0	26	6	ABP99743		Abp99743 Human sec	
	40	36	50.0	26	6	ABR01234		Abr01234 Human gen	
	41	36	50.0	26	6	ADA98331 .		Ada98331 Human sec	
	42	36 35	50.0	27	3	AAB39404		Aab39404 Human sec	
	43 44	35 35	48.6 48.6	12 12	6 7	ABR75736 ADN07316		Abr75736 Liver res	
	45	35	48.6	. 25	5	ABG62949		Adn07316 Liver res Abg62949 Ligand/re	
	46	35	48.6	25	5	ABG62951		Abg62949 Ligand/re	
	47	35	48.6	25	5	ABG62952	•	Abg62951 Ligand/re	
	48	35	48.6	25	5	ABG62950		Abg62950 Ligand/re	
	49	35	48.6	25	8	ADM74130		Adm74130 Ligand/re	
	50	35	48.6	25	8	ADM74131		Adm74131 Ligand/re	
	51	35	48.6	25	8	ADM74134		Adm74134 Ligand/re	
	52	35	48.6	25	8	ADM74135		Adm74135 Ligand/re	
	53	35	48.6	27	5	ABG62946		Abg62946 Ligand/re	
	54	35	48.6	27	5	ABG62947	•	Abg62947 Ligand/re	
	55	35	48.6	27	5	ABG62945		Abg62945 Ligand/re	
	56	35	48.6	27	5	ABG62948		Abg62948 Ligand/re	
	57	35	48.6	27	8	ADM74128	•	Adm74128 Ligand/re	
	58	35	48.6	27	8	ADM74129		Adm74129 Ligand/re	
	59	35	48.6	27	8	ADM74133		Adm74133 Ligand/re	
	60	. 35	48.6	27	8	ADM74132		Adm74132 Ligand/re	
	61	35	48.6	27	9	ADZ47462		Adz47462 Human HAS	
	62	34	47.2	8	8	ADJ66046		Adj66046 Human som	
	63	34	47.2	21	10	AEH44929		Aeh44929 IL-17 Zcy	

```
RESULT 1
ADO85937
ID
     ADO85937 standard; peptide; 12 AA.
XX
AC
     ADO85937;
XX
DT
     29-JUL-2004
                  (first entry)
XX
DE
     Cyclic poly-alpha2,8-sialic acid (PSA) mimetic peptide p65 SeqID 18.
XX
KW
     B epitope; poly-alpha2,8-sialic acid; PSA; neural cell adhesion molecule;
KW
     NCAM; neurodegenerative disease; brain lesion; spine lesion;
KW
     age-related learning problem; memory problem; cancer; peptide therapy;
KW
     neuroprotective; cytostatic; mimetic; cyclic.
XX
OS
     Synthetic.
XX
FH
     Key
                     Location/Qualifiers
FT
     Disulfide-bond
                     1. .11
FT
                     /note = Disulphide bond cyclises peptide
XX
PN
     EP1411061-A1.
XX
PD
     21-APR-2004.
XX
PF
     16-OCT-2002; 2002EP-00292548.
XX
PR
     16-OCT-2002; 2002EP-00292548.
XX
PA
     (CNRS ) CNRS CENT NAT RECH SCI.
PΑ
     (UYAI-) UNIV AIX-MARSEILLE II.
PA
     (SCHA/) SCHAFER N.
PA
     (UYHA-) UNIV HAMBURG.
XX
DR
     WPI; 2004-319104/30.
XX
PT
     New poly-alpha2,9-sialic acid peptide mimetics comprising a B epitope
PT
     recognized by an antipoly-alpha2,8 sialic acid antibody, useful for
PT
     treating and/or preventing e.g. neurodegenerative diseases or cancer.
XX
PS
     Claim 3; SEQ ID NO 18; 36pp; English.
XX
CC
     This invention relates to novel peptides that comprise a B epitope
CC
     recognised by an anti-poly-alpha2,8-sialic acid (PSA) antibody.
CC
     Specifically, it refers to PSA mimetic peptides that can negatively
CC
     regulate cell surface interactions and hence modulate PSA-dependent
CC
     neural cell adhesion molecule (NCAM) functions both in vitro and in vivo.
CC
     The present invention describes these peptides or derived complexes
CC
     thereof as useful in the preparation of a medicament for treating and/ or
CC
     preventing a pathological condition including a neurodegenerative
CC
     disease, brain and spine lesions, age-related learning and memory
CC
     problems, as well as cancer. The peptide may also be used as a
     complementary tool to uncover mechanisms of action and unknown functions
CC
CC
     of the carbohydrate PSA. Accordingly, such pharmaceutical compositions
CC
     can be used appropriately in peptide therapy and exhibit neuroprotective
CC
     and cytostatic activities. This peptide sequence is a cyclic PSA mimetic
CC
     peptide of the invention.
```

```
XX
SQ Sequence 12 AA;

Query Match 100.0%; Score 72; DB 8; Length 12;
Best Local Similarity 100.0%; Pred. No. 0.0027;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CSSVTAWTTGCG 12
| | | | | | | | | |
Db 1 CSSVTAWTTGCG 12
```

OM protein - protein search, using sw model

Run on: August 23, 2007, 12:57:49; Search time 339 Seconds

(without alignments)

37.951 Million cell updates/sec

Title: US-10-531-701-18

Perfect score: 72

Sequence: 1 CSSVTAWTTGCG 12

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters: 41180

Minimum DB seq length: 5
Maximum DB seq length: 30

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database :

UniProt_8.4:*

1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB	ID	Descrip	otion
1	34	47.2	26	2	Q9TR94_SHEEP	Q9tr94	ovis aries
2	32	44.4	26	2	Q79DW7_AZOVI	Q79dw7·	azotobacter
3	32	44.4	29	1	VARF_VIOAR	P58451	viola arven
4	31	43.1	30	2	Q3A9Y9_CARHZ	Q3a9y9	carboxydoth
5	30	41.7	22	2	Q93UU5_ECO57	Q93uu5	escherichia
. 6	30	41.7	25	2	Q865G5_HYLSY	. Q865g5	hylobates s
7	30	41.7	27	1	CXO6A_CONRA	P58914	conus radia
8	29	40.3	21	1	ALL7_OLEEU	P81430	olea europa
9	29	40.3	24	2	Q4XAU4_PLACH	Q4xau4	plasmodium
10	29	40.3	25	1	MT_AGABI	P04358	agaricus bi
11	28	38.9	18	2	Q9ZG65_CHLTR	Q9zg65	chlamydia t
12	28	38.9	20	2	Q9UDF5_HUMAN	Q9udf5	homo sapien
13	28	38.9	27	2	Q6WYW0_9PERC	Q6wYw0	luvarus imp
14	28	38.9	27	. 2	Q6WYV8_9PERC	Q6wyv8	paracanthur
15	28	38.9	27	2	Q6WYV3_9PERC	Q6wyv3	acanthurus

4.7	4				0				
.									
	16	28	38.9	27	2	Q6WYV1_9PERC	•	Q6wyv1 acanthurus	
	17	28	38.9	27	2	Q6WYU4_9PERC		Q6wyu4 ctenochaetu	
	18	28	38.9	. 27	2	Q6WYU5_9PERC		Q6wyu5 acanthurus	
	19 20	28 28	38.9 38.9	27 . 27	2	Q6WYU8_9PERC Q6WYT2_9PERC		Q6wyu8 acanthurus Q6wyt2 naso macula	
	21	28	38.9	27	2	Q6WYT9_9PERC		Q6wyt9 naso caerul	
	22	28	38.9	27	2	Q6WYU9_9PERC		Q6wyu9 acanthurus	
	23 24	28 ⁻ 28	38.9 38.9	27 27 ·	2 2	Q6WYT7_9PERC Q6WYS5_9PERC	•	Q6wyt7 naso elegan Q6wys5 naso unicor	
	25	28	38.9	27	2	Q6WYV2_9PERC		Q6wyv2 acanthurus	
	26	28	38.9	27	2	Q6WYT5_9PERC		Q6wyt5 naso hexaca	
	27 28	28	38.9	27	2	Q6WYS8_9PERC		Q6wys8 naso thynno	
	2 6 29	28 28	38.9 .38.9	27 27	2	Q6WYV9_9PERC Q6WYV7_9PERC		Q6wyv9 zanclus cor Q6wyv7 prionurus m	
	30	28	38.9	27	2	Q6WYV0_9PERC		Q6wyv0 acanthurus	
	31	28	38.9	27	2	Q6WYU1_9PERC		Q6wyul naso brachy	
	32 33	28 _. 28	38.9 38.9	27 27	2 2	Q6WYT1_9PERC Q6WYT3_9PERC		Q6wyt1 naso mcdade Q6wyt3 naso lopezi	
	34	28	38.9	27	2	Q6WYT4 9PERC		Q6wyt4 naso litura	
,	35	. 28	38.9	27	2	Q6WYT8_9PERC		Q6wyt8 naso caesiu	
	36	28	38.9	27	2	Q6WYT0_9PERC		Q6wyt0 naso minor.	
	3 <i>7</i> 38	28 28	38.9 38.9	27 27	2 2	Q6WYU2_9PERC Q6WYS4_9PERC		Q6wyu2 naso annula Q6wys4 naso vlamin	
	39	28	38.9	27	2	Q6WYT6_9PERC		Q6wyt6 naso fageni	
	40	28	38.9	27	2	Q6WYS3_9PERC		Q6wys3 naso sp. 1-	
	41 42	28 28	38.9	27	2	Q6WYU3_9PERC		Q6wyu3 ctenochaetu	
	43	28	38.9 38.9	27 27	2 2	Q6WYU0_9PERC Q6WYS7_9PERC	•	Q6wyu0 naso brevir Q6wys7 naso tongan	
	44	28	38.9	27	2	Q6WYV4_9PERC		Q6wyv4 zebrasoma v	
	45	28	38.9	27	2	Q6WYV6_9PERC		Q6wyv6 prionurus s	
	46 47	28 28	38.9 38.9	27 27	2 2	Q6WYU7_9PERC Q6WYS9_9PERC		Q6wyu7 acanthurus Q6wys9 naso reticu	
	48	28	38.9	27	2	Q6WYU6 9PERC		Q6wyu6 acanthurus	•
	49	28	38.9	27	2	Q6WYS6_9PERC	•	Q6wys6 naso tubero	
	50	. 28	38.9	28	2	Q4X2U3_PLACH		Q4x2u3 plasmodium	
	51 52	28 27	38.9 37.5	29 16	2 2	Q9N1W3_HORSE Q3ZEV7_9CHAR	•	Q9n1w3 equus cabal Q3zev7 tringa stag	
·	53	27	37.5	23	2	Q9R2G4_KLEPN		Q9r2g4 klebsiella	
	54	27	37.5	27	2	Q9MKR2_MELGA		Q9mkr2 meleagris g	
	55 56	27 27	37.5 37.5	27 27	2	Q45UI9_9HIV1 Q45UI5_9HIV1		Q45ui9 human immun Q45ui5 human immun	
	57	27	37.5	27	2	Q45UI6_9HIV1		Q45ui6 human immun	
	58	27	37.5	27	2	Q45UI8_9HIV1	••	Q45ui8 human immun	
	59 60	27 27	37.5 37.5	27 28	2 2	Q45UI7_9HIV1 Q5EMT0 MAGGR		Q45ui7 human immun Q5emt0 magnaporthe	
	61	27	37.5	28 28	2	Q4RCL2_TETNG		Q4rcl2 tetraodon n	
	62	26	36.1	11	2	Q99JC3_9MURI		Q99jc3 rattus sp.	
	63	26	36.1	16	2	Q8HUM0_9MAGN		Q8hum0 eudicot env	١
	6 <u>4</u> 65	26 26	36.1 36.1	16 19	2	Q8HUM1_9POAL Q41567_WHEAT		Q8hum1 uncultured Q41567 triticum ae	\$
	66	26	36.1	20	1	NLTP1_HELAN		P82007 helianthus	
	67	26	36.1	21	2	Q8MJP1_CALJA		Q8mjp1 callithrix	
	68 69	26 26	36.1 36.1	21 21	2 2	Q8MJP4_SAGFU Q8MJP0 CEBPY		Q8mjp4 saguinus fu Q8mjp0 cebuella py	
	70 .	26	36.1	21	2	Q7M1P2_HELAN		Q7m1p2 helianthus	
	71	26	36.1	25	2	Q23QB2_TETTH		Q23qb2 tetrahymena	
	72	26	36.1	26	2	Q2HWU6_DROSE		Q2hwu6 drosophila	
. *				٠					
			•						
	•					•		•	
						•			

OM protein - protein search, using sw model

Run on: August 23, 2007, 13:01:39; Search time 38 Seconds

(without alignments)

30.384 Million cell updates/sec

Title: US-10-531-701-18

Perfect score: 72

Sequence: 1 CSSVTAWTTGCG 12

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5 .

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 6197

Minimum DB seq length: 5
Maximum DB seq length: 30

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : PIR_80:*

1: pir1:*
2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	۰, ه				,
Result	Quer	Y .			
No.	Score Mato	h Length	DB	ID ·	Description
1	34 47.	2 19	2	S57515	T cell receptor be
2	33 45.	8 19	2	S57516	T cell receptor be
3	33 45.	8 25	2	B44908	chitinase (EC 3.2.
4	30 41.	7 20	2	PH1358	Ig heavy chain DJ
5	30 41.	7 22	2	PT0303	Ig heavy chain CDR
6	30 41.	7 28	2	PH1363	Ig heavy chain DJ
7	29 40.	3 17	2	PH1331	Ig heavy chain DJ
8	29 40.	3 25	1	SMMR	metallothionein -
. 9	28 38.	9 19	2	PH1352	Ig heavy chain DJ
10	28 38.	9 19	2	PH1315	Ig heavy chain DJ
11	27 37.	5 23	2	A43872	fimbrial adhesin C
12	. 26 36.	1 23	2	S07967	T-cell receptor be
13	26 36.	1 24	2	PH0084	fatty acid-binding
3 4 5 6 7 8 9 10 11	33 45. 30 41. 30 41. 30 41. 29 40. 29 40. 28 38. 28 38. 27 37. 26 36.	8 25 7 20 7 22 7 28 3 17 3 25 9 19 9 19 5 23 1 23	2 2 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	B44908 PH1358 PT0303 PH1363 PH1331 SMMR PH1352 PH1315 A43872 S07967	chitinase (EC 3) Ig heavy chain I Ig heavy chain I Ig heavy chain I Ig heavy chain I metallothionein Ig heavy chain I Ig heavy chain I If heavy chain I fimbrial adhesin T-cell receptor

14	26	36.1	25	2	S71387	alpha-2-macroglobu
15	26	36.1	28	2	I52627	erythrocyte chemok
16	25	34.7	20	2	S66222	defensin AMP2 - Da
17	25	34.7	21	2	S28436	major outer membra
18	25	34.7	22	2	A35418	brain natriuretic
19	25	34.7	25	2	A49389	alkaline serine pr
20	25	34.7	28	2	S07826	venom protein - Am
21	25	34.7	29	2	S58388	T-cell receptor be
22	25	34.7	30	1	SNUMP	sillucin - Rhizomu
23	25	34.7	.30	2	S05223	photosystem I 6.5K
24	25	34.7	30	2	H97596	hypothetical prote
25	24	33.3	11	2	S66196	alcohol dehydrogen
26	24	33.3	14	2	PH0747	T-cell receptor be
27				2		
	24	33.3	15		PH0.750	T-cell receptor be
28	24	33.3	26	2	S55029	CAP3 protein - ant
29	24	33.3	26	2	A58955	metalloendoprotein
30	24	33.3	27	2	T06375	probable ferredoxi
31	24	33.3	27	2	S77649	hypothetical prote
32	· 24	33.3	29	2	PH0259	T-cell receptor Vb
33	24	33.3	29	2	A56283	kalata B1 (validat
34	23.5	32.6	20	2	S38763	S-adenosyl-L-methi
35	23	31.9	13	2	B26406	Ig kappa chain J r
36	23	31.9	13	2	A47630	Ig kappa chain J r
37	23	31.9	18	2	S19914	choline O-acetyltr
38	23	31.9	19	2	A44379	alpha-conotoxin SI
39	23	31.9	22	2	B26212	-
						carboxypeptidase B
40	23	31.9	22	2	S42567	cytochrome-b5 redu
41	23	31.9	26	1.	SMNC	metallothionein -
42	23	31.9	28	2	C35948	phospholipase A2 (
43	23	31.9	29	2	B43620	omega-conotoxin GV
44	23	31.9	30	2	S68639	nigroxin A - black
45	23	31.9	30	2	S68640	nigroxin B - black
46	22	30.6	9	2	S07241	litorin - Rohde's
47	22	30.6	10	2	T17057	cytochrome-c oxida
48	22	30.6	10	2	T12303.	cytochrome-c oxida
49	22	30.6	10	2	T17060	cytochrome-c oxida
50	22	30.6	10		T17072	cytochrome-c oxida
51	22	30.6	12	2	PH1675	Ig heavy chain V r
52	22	30.6	13	2	PH1675	
						Ig heavy chain V r
53	22	30.6	14	2	PH1677	Ig heavy chain V r
54	22	30.6	15	2	PH0751	T-cell receptor be
55	22	30.6	17	2	167524	CD33 antigen homol
56	22	30.6	18	2	S23971	alpha-macroglobuli
57	22	30.6	19	2	G49048	T-cell receptor be
58	22	30.6	20	2	T46626	hypothetical prote
. 59	22	30.6	21	2	PH1690	Ig heavy chain V r
60	22	30.6	21	2	PH1688	Ig heavy chain V r
61	22	30.6	22	2	PH1680	Ig heavy chain V r
62	22	30.6	22	2	PH1679	Ig heavy chain V r
63	22	30.6	22	2	PH1678	Ig heavy chain V r
64	22	30.6	23	2	PH1689	Ig heavy chain V r
65	22	30.6	23	2	PH1694	Ig heavy chain V r
66	22	30.6	23	2	PH1694	
						Ig heavy chain V r
67	22	30.6	23	2	PH1693	Ig heavy chain V r
68	22	30.6	23	2	PH1681	Ig heavy chain V r
69	22	30.6	23	2	PH1682	Ig heavy chain V r
70	22	30.6	23	2	PH1691	Ig heavy chain V r

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:06; Search time 69 Seconds

(without alignments)

163.111 Million cell updates/sec

Title: SEQ18-SEQ18

Perfect score: 138

Sequence:

1 CSSVTAWTTGcCSSVTAWTTGcg 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched:

2782304 seqs, 489333398 residues

Total number of hits satisfying chosen parameters: 2782304

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : A_Geneseq_200701:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:* '

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

9: geneseqp2005s:*

10: geneseqp2006s:*

11: geneseqp2007s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	- 1		~~ .		
Score	Match	Length	 DB	Ιυ .	Description
72	52.2	12	8	ADO85937	Ado85937 Cyclic po
72	52.2	753	8	ADP30988	Adp30988 Human sec
72	52.2	1861	10	AEI57987	Aei57987 Thale cre
69	50.0	1509	10	AEI57371	Aei57371 Thale cre
69	50.0	1510	10	AEI56371	Aei56371 Thale cre
69	50.0	1600	· 10	AEI56169	Aei56169 Zea mays
	72 72 69 69	Score Match 72 52.2 72 52.2 72 52.2 69 50.0 69 50.0	72 52.2 12 72 52.2 753 72 52.2 1861 69 50.0 1509 69 50.0 1510	Score Match Length DB 72 52.2 12 8 72 52.2 753 8 72 52.2 1861 10 69 50.0 1509 10 69 50.0 1510 10	Score Match Length DB ID 72 52.2 12 8 AD085937 72 52.2 753 8 ADP30988 72 52.2 1861 10 AEI57987 69 50.0 1509 10 AEI57371 69 50.0 1510 10 AEI56371

							•
							·
							•
	7	69	50.0	1847	10		Aei58385 Zea mays
	8	68.5	49.6	1396	10	AEI55999	Aei55999 Thale cre
	9	68	49.3	1432	10	AEI56479	Aei56479 Zea mays
	10	68	49.3	1440	10	AEI57593	Aei57593 Thale cre
	11	68	49.3	1965	10	AEI56625	Aei56625 Zea mays
	12	68	49.3	2280	10	AEI57411	Aei57411 Thale cre
	13	68	49.3	2487	10	AEI57141	Aei57141 Thale cre
	14	68	49.3	2616	9	AEB49675	Aeb49675 N. mening
	15	67.5	48.9	1434	10	AEI56727	Aei56727 Zea mays
	16	67	48.6	1577	10	AEI56651	Aei56651 Zea mays
	17	66	47.8	762	8	ADP31012	Adp31012 Human sec
	18	66	47.8	824	10		Aei56575 Zea mays
•	19	66	47.8	885	8	ADP31011 "	Adp31011 Human sec
	20	66	47.8	1537	10		Aei56249 Zea mays
	21	66	47.8	1568	10		Aei58079 Thale cre
	22	66	47.8	1595	10		Aei57633 Thale cre
	23	66	47.8	1696	10		Aei56163 Zea mays
	24	66	47.8	1951	10		Aei58651 Soybean p
	25	66	47.8	2268	10	•	Aei57595 Thale cre
	26	66	47.8	2328.	10		Aei57469 Thale cre
	27	66	47.8	2484	8	ADP66690	Adp66690 Human mis
	28	65.5	47.5	1092	8	ADP31153	Adp31153 Human sec
	29		47.5	1305			Aei57293 Thale cre
		65 65			10	•	
	30	65	47.1	1324	10		Aei58241 Thale cre
	31	65	47.1	1401	10		Aei56871 Thale cre
	32	65	47.1	1527	10		Aei56859 Thale cre
	33	65	47.1	1602	10		Aei56221 Zea mays
	34	65	47.1	1623	10		Aei57045 Thale cre
	35	65	47.1	2017	10		Aei58215 Zea mays
	36	65	47.1	2119	10		Aei60331 Bread whe
	37	65	47.1	2380	10		Aei57231 Thale cre
	38	65	47.1	2499	10		Aei55671 Thale cre
	39	65	47.1	2762	10		Aei58209 Thale cre
	40	65	47.1	3331	10		Aei57107 Thale cre
	41	64.5	46.7	1069	10	AEI56761	Aei56761 Zea mays
	42	64.5	46.7	1357	10	AEI57257	Aei57257 Thale cre
	43	64.5	46.7	1359	10	AEI56507	Aei56507 Thale cre
	44	64.5	46.7	1566	10	AEI55755	Aei55755 Thale cre
	45	64.5	46.7	1855	10	AEI58011	Aei58011 Thale cre
	46	64.5	46.7	1856	10	AEI55855	Aei55855 Thale cre
	47	64	46.4	240	8	ADP31579	Adp31579 Human sec
	48	64	46.4	619	10	AEI56055	Aei56055 Zea mays
	49	64	46.4	1002	8	ADP30866	Adp30866 Human sec
	50	64	46.4	1117	10	AEI56991	Aei56991 Thale cre
	51	64	46.4	1170	8	ADP30919	Adp30919 Human sec
	52	64	46.4	1170	8	ADP30922	Adp30922 Human sec
	53	64	46.4	1194	10		Aei57861 Thale cre
	54	64	46.4	1293	10		Aei58071 Thale cre
	55	64	46.4	1293	10		Aei57643 Thale cre
	56	64	46.4	1407	10		Aei55655 Thale cre
	57	64	46.4	1419	10		Aei55665 Thale cre
	58	64	46.4	1435	10		Aei60567 Soybean p
	59	64	46.4	1490	10		Aei58067 Thale cre
	60	64	46.4	1676	10		Aei56079 Zea mays
	61	64 64	46.4	1682	10		Aei57991 Thale cre
	62	64	_	1691	10		Aei56295 Zea mays
	63	64	46.4	2458	10		Aei57027 Thale cre
	U J	6.0	70.7	2430	10	HET2/02/	ACIS/UZ/ INATE CIE

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:06; Search time 69 Seconds

(without alignments)

163.111 Million cell updates/sec

Title: SEQ18-SEQ22

Perfect score: 132

1 CSSVTAWTTGCCSKIASMETGCG 23 Sequence:

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2782304 seqs, 489333398 residues

Total number of hits satisfying chosen parameters: 2782304

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : A_Geneseq_200701:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: genesegp2003bs:* 8: geneseqp2004s:*

9: geneseqp2005s:*

10: geneseqp2006s:* 11: geneseqp2007s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB	ID	Description
1	67	50.8	3723	10	AEI58335	Aei58335 Zea mays
2	. 66	50.0	12	8	ADO85941	Ado85941 Cyclic po
· 3	66	50.0	12	8	ADO85937	Ado85937 Cyclic po
4	66	50.0	1509	10	AEI57371	Aei57371 Thale cre
5	66	50.0	1510	10	AEI56371	Aei56371 Thale cre
6	64	48.5	1568	10	AEI58079	Aei58079 Thale cre

7	64	48.5	1595	10	AEI57633		Aei57633 Thale cre
8	62	47.0	152	8	ADY06675		Ady06675 Plant ful
.9	62	47.0	882	8	ADP31688		Adp31688 Human sec
10	61	46.2	1269		ADV23456		-
				8			Adu23456 Sulfolobu
11	61	46.2	1704	10	AEI56537		Aei56537 Thale cre
12	61	46.2	1861	10	AEI57987		Aei57987 Thale cre
1.3	60.5	45.8	893	10	AEI57475		Aei57475 Thale cre
14	60.5	45.8	1092	8	ADP31153		Adp31153 Human sec
15	60	45.5	753	8	ADP30988		Adp30988 Human sec
16	60 ·		1422	10	AEI56223		Aei56223 Zea mays
17	60	45.5	1435	10	AEI60567		Aei60567 Soybean p
18	60	45.5	1691	10	AEI56295		Aei56295 Zea mays
19	60	45.5	1711	10	AEI57723		Aei57723 Zea mays
20	60	45.5	1833	8	ADP30642		Adp30642 Human sec
21	60	45.5	2344	10	AEI57029		Aei57029 Thale cre
22	59	44.7	12	8	ADO85940		Ado85940 Cyclic po
23	59	44.7	1407	10	AEI55655		Aei55655 Thale cre
24	59	44.7	1440	10	AEI57593		Aei57593 Thale cre
25	59	44.7	1616	8	ADP31004		Adp31004 Human sec
26	59	44.7	1616	8	ADP30987		Adp30987 Human sec
27	59	44.7	1616	8	ADP30967		Adp30967 Human sec
28	59	44.7	1682	10	AEI57991		Aei57991 Thale cre
29	59	44.7	1806	10	AEI56405		Aei56405 Zea mays
30	59	44.7	1848	10	AEI56905		Aei56905 Zea mays
31	58.5	44.3	1818	10	AEI56265		Aei56265 Zea mays
32	58	43.9	672	8	ADP30498		Adp30498 Human sec
33	58	43.9	1401	8	ADP30532	•	Adp30532 Human sec
34	58	43.9	1401	10	AEI56871		Aei56871 Thale cre
35	58	43.9	1420	8	ADP30944		Adp30944 Human sec
36	58	43.9	1470	8	ADP31290		Adp31290 Human sec
37	58	43.9	1638	10	AEI56193		Aei56193 Zea mays
38	. 58	43.9	2280	10	AEI57411		Aei57411 Thale cre
39	. 58	43.9	2380	10	AEI57231		Aei57231 Thale cre
40	58	43.9	2487	10	AEI57141		Aei57141 Thale cre
41	58	43.9	2628.	10	AEI58225		Aei58225 Zea mays
42	58	43.9	3331	10	AEI57107		Aei57107 Thale cre
43	57.5	43.6	484	8	ADP31628		Adp31628 Human sec
44	57.5	43.6	583	8	ADP30553		Adp30553 Human sec
4.5	57.5	43.6	1419	10	AEI55665		Aei55665 Thale cre
46	57.5	43.6	1462	10	AEI56707		Aei56707 Zea mays
47	57.5	43.6	1490	10	AEI58067		Aei58067 Thale cre
48	57.5	43.6	1750	10	AEI56103		Aei56103 Thale cre
49	57.5	43.6	1751	10	AE150103		Aei57959 Thale cre
50	57.5	43.6	1869	10	AEI57877		Aei57959 Thale Cre
51	57.5	43.0	501	8	ADP31689	•	Adp31689 Human sec
52	5 <i>7</i> 57	43.2	507	8			-
53	5 <i>7</i> 57	43.2			ADP30869 ADP30972		Adp30869 Human sec
			856	8			Adp30972 Human sec
54 55	5 <i>7</i>	43.2	1195	10	AEI57953		Aei57953 Thale cre
55	57	43.2	1199	10	AEI55925		Aei55925 Thale cre
56 57	57 57	43.2	1215	8	ADP30898		Adp30898 Human sec
57 50	57 57	43.2	1215	8	ADP30900		Adp30900 Human sec
58	57 57	43.2	1231	10	AEI57495		Aei57495 Thale cre
59	57 57	43.2	1248	8	ADP31346		Adp31346 Human sec
60	57 57	43.2	1337	10	AEI56893		Aei56893 Thale cre
61 63	57	43.2	.1371	10	AEI57113		Aei57113 Thale cre
62 63	57 57	43.2	1383	10	AEI57315		Aei57315 Thale cre
63	57	43.2	1533	10	AEI57589		Aei57589 Thale cre

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:06; Search time 69 Seconds

(without alignments)

163.111 Million cell updates/sec

Title: SEQ22-SEQ18

Perfect score: 132

Sequence: 1 CSKIASMETGCCSSVTAWTTGCG 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2782304 seqs, 489333398 residues

Total number of hits satisfying chosen parameters: 2782304

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : A Geneseq 200701:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

9: geneseqp2005s:*

10: geneseqp2006s:*

11: geneseqp2007s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB	ID .	Description
1	72	54.5	12	8	ADO85937	Ado85937 Cyclic po
2	64	48.5	1396	1.0	AEI55999	Aei55999 Thale cre
3	63	47.7	753	8	ADP30988	Adp30988 Human sec
4	62.5	47.3	1691	10	AEI56295	Aei56295 Zea mays
5	62	47.0	2280	10	AEI57411	Aei57411 Thale cre
6	62	47.0	2487	10	AEI57141	Aei57141 Thale cre

					•	
7	61.5	46.6	1951	10	AEI58651	Aei58651 Soybean p
8	61	46.2	2604	10	AEI57169	Aei57169 Thale cre
9	61	46.2	3723	10	AEI58335	Aei58335 Zea mays
10	60	45.5	12	8	ADO85941	Ado85941 Cyclic po
11	60	45.5	1209	10	AEI59917	Aei59917 Bread whe
12	60	45.5	1965	10	AEI56625	Aei56625 Zea mays
13	60	45.5	2499	10	AEI55671	Aei55671 Thale cre
14	. 60	45.5	2773	10	AEI56999	Aei56999 Thale cre
15	. 60	45.5	2791	10	AEI58359	Aei58359 Thale cre
16	60	45.5	3060	10	AEI57065	Aei57065 Thale cre
17	59.5		1069	10	AEI56761	Aei56761 Zea mays
18	59.5	45.1	1446	10	AEI56195	Aei56195 Zea mays
19	59.5	45.1	1833	8	ADP30642	Adp30642 Human sec
20	59	44.7	619	10	AEI56055	Aei56055 Zea mays
21	59.	44.7	1336	10	AEI56065	Aei56065 Zea mays
22	59 ·		1420		ADP30944	Adp30944 Human sec
23	59 50	44.7	1430	10	AEI56515	Aei56515 Zea mays
24	59 50	44.7	1549	10	AEI56141	Aei56141 Zea mays
25 26	59 50	44.7	2119	10	AEI60331	Aei60331 Bread whe
27	59 59	44.7 44.7	2268 2328	10 10	AEI57595 AEI57469	Aei57595 Thale cre
28	59 59	44.7	2514	8	ADP30727	Aei57469 Thale cre
29	. 59	44.7	2828	8	ADP30727 ADP30938	Adp30727 Human sec
30	58.5	44.3	137	7	ABO80869	Adp30938 Human sec Abo80869 Pseudomon
31	58.5	44.3	1233	8	ADP30523	Adp30523 Human sec
32	58.5	44.3	1602	10	AEI56221	Adp30323 Adman sec Aei56221 Zea mays
33	58	43.9	1131	10	AEI57137	Aei57137 Thale cre
34	58	43.9	1345	10	AEI57781	Aei57781 Zea mays
35	58	43.9	1806	10	AEI56405	Aei56405 Zea mays
36	58	43.9	2272	8	ADP31136	Adp31136 Human sec
37	58	43.9	2314	10	AEI57977	Aei57977 Thale cre
38	58	43.9	4659	10	AEI57349	Aei57349 Thale cre
39	57.5	43.6	994	10	AEI56451	Aei56451 Zea mays
40	57.5	43.6	1209	10	AEI57417	Aei57417 Thale cre
41	57.5	43.6	1431	10	AEI57865	Aei57865 Thale cre
42	57.5	43.6	1527	10	AEI56859	Aei56859 Thale cre
43	57.5	43.6	3426	10	AEI57085	Aei57085 Thale cre
44	57	43.2	583	8	ADP30553	Adp30553 Human sec
45	57	43.2	1067	10	AEI57251	Aei57251 Thale cre
46	57	43.2	1116	8	ADP31203	Adp31203 Human sec
47	57	43.2	1116	8	ADP31202	Adp31202 Human sec
48	57	43.2	1250	10	AEI57421	Aei57421 Thale cre
49	57	43.2	1251	10	AEI55959	Aei55959 Thale cre
50	57	43.2	1289	8	ADP30675	Adp30675 Human sec
51	57	43.2	1292	10	AEI57269	Aei57269 Thale cre
52	57	43.2	1293	10	AEI56357	Aei56357 Thale cre
53	57	43.2	1337	10	AEI55909	Aei55909 Thale cre
54 55	57 57	43.2	1413	10	AEI56187	Aei56187 Zea mays
56		43.2	1462	10	AEI56075	Aei56075 Zea mays
50 57	57 57	43.2 43.2	1481 1486	8 10	ADP30948 AEI58055	Adp30948 Human sec Aei58055 Thale cre
58	57 57	43.2	1500	10	AEI57055	Aei57055 Thale cre
59	57	43.2	1506	8	ADP30596	Adp30596 Human sec
60	5 <i>7</i>	43.2	1509	10	AEI57371	Adp30596 Human sec Aei57371 Thale cre
61	5 <i>7</i>	43.2	1510	10	AEI56371	Aei56371 Thale cre
62	57	43.2	1539	8	ADP31201	Adp31201 Human sec
63	57	43.2	1539	8	ADP31200	Adp31200 Human sec
						_ · · · · · · · · · · · · · · · · · · ·

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:06; Search time 69 Seconds

(without alignments)

163.111 Million cell updates/sec

Title: SEQ22-SEQ22

Perfect score: 126

Sequence: 1 CSKIASMETGCcskiasmetgcg 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2782304 segs, 489333398 residues

Total number of hits satisfying chosen parameters: 2782304

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : A_Geneseq_200701:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

9: geneseqp2005s:*

10: geneseqp2006s:*

11: geneseqp2007s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB	ID	Description
					- 	
1	66	52.4	12	8	ADO85941	Ado85941 Cyclic po
2	64	50.8	3723	10	AEI58335	Aei58335 Zea mays
3	59	46.8	12	8	ADO85940	Ado85940 Cyclic po
4	57	45.2	2828	8	ADP30938	Adp30938 Human sec
5	55	43.7	51	4	ABB03442	Abb03442 Human mus
6	55	43.7	51	6	ABU12736	Abul2736 Novel hum

7	55	43.7	51	8	ADJ28762			•	Adj28762 Human mus
8	55	43.7	171	5	AAE18324				Aae18324 Sheep ker
9	54	42.9	174	9	AEA15441				Aea15441 Human pol
10	54	42.9	174	10					Aek59301 Human ker
11	54	42.9	174	10					Ael18833 Human ker
12	54	42.9	1509	10					Aei57371 Thale cre
13	54	42.9	1510	10					Aei56371 Thale cre
14	53	42.1	615	8	ADP30803				Adp30803 Human sec
15	53	42.1	1035	9	AED44877				Aed44877 Aurora pr
16	53	42.1	1779	10	AEI56971				Aei56971 Thale cre
17	53	42.1	2808	8	ADP31258				Adp31258 Human sec
18	53	42.1	4683	8	ADP31260				Adp31260 Human sec
19	53	42.1	4848	8	ADP31259				Adp31259 Human sec
20	52	41.3	507	8	ADP30869 .				Adp30869 Human sec
21	52	41.3	1215	10					Aei58333 Zea mays
22	5.2	41.3	1549	10					Aei56141 Zea mays
23	52	41.3	1639	10					Aei56667 Zea mays
24	52	41.3	1825	10		•			Aei56415 Zea mays
25		41.3	2101	10					Aei56311 Zea mays
26	52	41.3	2280	10	AEI57411				Aei57411 Thale cre
27	52	41.3	2487	-	AEI57141				Aei57141 Thale cre
28	52	41.3	2604	10					Aei57169 Thale cre
29	51.5	40.9	1481	10					Aei56411 Zea mays
30	51	40.5	753	8	ADP30988				Adp30988 Human sec
31	51	40.5	1042	10					Aei55889 Thale cre
32	51	40.5	1042	10					Aei58033 Thale cre
33	51	40.5	1071	9	AEC05688				Aec05688 Human pep
34	51	40.5	1071	10					Aeh16870 Human pep
35	51	40.5	1191	8	ADP30993				Adp30993 Human sec
36	51	40.5	1316	10	AEI56237				Aei56237 Zea mays
37	51	40.5.	1498	8	ADP30684		•		Adp30684 Human sec
38	51	40.5	1815	8	ADP31601				Adp31601 Human sec
39	51	40.5	1833	8	ADP30642				Adp30642 Human sec
40	51	40.5	2598						Aei57021 Thale cre
41	50.5	40.1	396	8	ADP31625				Adp31625 Human sec
42	50.5	40.1	504	8	ADP31624				Adp31624 Human sec
43	50.5	40.1	1431	8	ADP31051				Adp31051 Human sec
44	50.5	39.7	252	8	ADP31487				Adp31487 Human sec
45	50	39.7	348	8	ADP31407				Adp31676 Human sec
46	50	39.7	856	8	ADP30972	•			Adp30972 Human sec
47	50	39.7	906	8	ADP31344				Adp31344 Human sec
48	50	39.7	1192	8	ADP31180				Adp31180 Human sec
49	50	39.7	1205	10	AEI58291				Aei58291 Thale cre
50	50	39.7	1289	8	ADP30675				Adp30675 Human sec
51	50	39.7	1302	8	ADP31695				Adp31695 Human sec
52	50	39.7	1432	10	AEI56633				Aei56633 Zea mays
53	50	39.7	1452	10	AEI56649				Aei56649 Zea mays
54	50	39.7	1568	10	AEI58079				Aei58079 Thale cre
55	50	39.7	1595	10	AEI57633				Aei57633 Thale cre
56	50	39.7	1611	10	AEI57633		_		Aei57767 Thale cre
57	50	39.7	1611	10	AEI57767 AEI58085		`		Aei58085 Thale cre
58	50	39.7	1638	10	AEI56193				Aei56193 Zea mays
59	50	39.7	1806	10					Aei56405 Zea mays
- 60	50	39.7 39.7	2344	10	AEI56405 AEI57029				
61	50 50	39.7 39.7	3046	8	ADP31684			_	Aei57029 Thale cre
62	50	39.7	3579	8	ADP31684 ADP31098			-	Adp31684 Human sec
63	50	39.7	4659	10	AEI57349				Adp31098 Human sec Aei57349 Thale cre
· ·	30	33.1	40J2	Τ.0	PRITO 1343				Peralaga illate cie

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:59; Search time 166 Seconds

(without alignments)

148.996 Million cell updates/sec

Title: SEQ18-SEQ18

Perfect score: 138

Sequence: 1 CSSVTAWTTGcCSSVTAWTTGcg 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters: 3281787

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database :

UniProt 8.4:*..

1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB	ID	Description
1	57 ·	41.3	38	1	COAT3_BPPHL	P68672 bacteriopha
2	57	41.3	38	1	COAT3_XANCP	P68671 xanthomonas
3	57	41.3	38	2	Q3BSR4_XANC5	Q3bsr4 xanthomonas
4	57	41.3	38	2	Q4UUU6_XANC8	Q4uuu6 xanthomonas
5	57	41.3	647	2	Q9PT10_ONCMY	Q9pt10 oncorhynchu
6	56.5	40.9	257	1	CJ095_HUMAN	Q9h7t3 homo sapien
7	56.5	40.9	. 569	2	Q4QGR6_LEIMA	Q4qgr6 leishmania
8	56	40.6	965	2	Q23JG4_TETTH	Q23jg4 tetrahymena
9	54.5	39.5	725	2	Q4T771_TETNG	Q4t771 tetraodon n
10	54.5	39.5	1044	2	Q4RU50_TETNG	Q4ru50 tetraodon n
11	54 .	39.1	239	2	Q4S5B5_TETNG	Q4s5b5 tetraodon n
12	54	39.1	714	2	Q51753_PSEFL	Q51753 pseudomonas
13	54	39.1	2289	2	Q4S3T6_TETNG	Q4s3t6 tetraodon n
14	53.5	38.8	563	2	Q5NZ27_AZOSE	Q5nz27 azoarcus sp
15	53	38.4	291	2	Q2JH08_FRASC	Q2jh08 frankia sp.

16	53	38.4	483	2	Q4DW34 TRYCR	04dw34	trypanosoma
17	53	38.4	547	2	Q3TXH8 MOUSE		mus musculu
18	53	38.4	757	2	Q2Z090_9GAMM		uncultured
19	52.5	38.0	62	2	Q6H539_ORYSA	•	orýza sativ
20	52.5	38.0	270	2	Q9LH57 ARATH		arabidopsis
21	52.5	38.0	282	2	_		-
22				2	Q9C7C1_ARATH		arabidopsis
	52.5	38.0	443		Q3TGD7_MOUSE	_	mus musculu
23	52.5	38.0	503	2	Q3TL84_MOUSE		mus musculu
24	52.5	38.0	539	1	LRMP_MOUSE		mus musculu
25	52.5	38.0	. 539	2	Q3TVR1_MOUSE		mus musculu
26	52.5	38.0	582	2	Q1E148_COCIM		coccidioide
27	52	37.7	305	. 1	POPD3_CHICK	Q9dg25	gallus gall
28	52	37.7	431	2	Q5GVM4_XANOR	Q5gvm4	xanthomonas
29	52	37.7	435	2	Q3JP43_BURP1	Q3jp43	burkholderi
30	52	37.7	474	2	049335 ARATH	049335	arabidopsis
31	52	37.7	480	2	Q8RWE3 ARATH	Q8rwe3	arabidopsis
32	52	37.7	542	2	Q235T5 TETTH		tetrahymena
33	52	37.7	693	2	Q9DG20 CHICK		gallus gall
34	52	37.7	922	2	Q2R1X1 ORYSA	_	oryza sativ
35	52	37.7	1214	2	Q4P8U0 USTMA		ustilago ma
36	51.5	37.3	305	2.	Q387P3 9TRYP		trypanosoma
37	51.5	37.3	497	2	Q947N0_ORYSA		oryza sativ
38	51.5	37.3	498	2	-		_
39	51.5	37.3	797	2	Q6K9G3_ORYSA	_	oryza sativ
					Q8UW62_ORENI		oreochromis
40	51	37.0	58	2	Q33B75_ORYSA		oryza sativ
41	51	37.0	208	2	Q5YTQ3_NOCFA		nocardia fa
42	51	37.0	220	2	Q2U0X3_ASPOR		aspergillus
43	51	37.0	484	2	Q7M3V0_LIMPO		limulus pol
44	51	37.0	618	2	Q5Z3K8_NOCFA		nocardia fa
45	51	37.0	635	2	Q6SK16_ARTAU	Q6sk16	arthrobacte
46	50.5	36.6	152	2	Q2NS34_SODGM	Q2ns34	sodalis glo
47	50.5	36.6	314	2	Q3A5M5_PELCD	Q3a5m5	pelobacter
48	50.5	36.6	327	2	Q4RESO_TETNG	Q4res0	tetraodon n
49	50.5	36.6	330	2	Q6NWF2_BRARE	Q6nwf2	brachydanio
50	50.5	36.6	594	2	Q7SHC4 NEUCR	Q7shc4	neurospora
51	50.5	36.6	2451	2	Q52R83 PHYCI		phytophthor
52	50.5	36.6	3067	2	Q4S7T9_TETNG		tetraodon n
53	50.5	36.6	3148	1	HD FUGRU		fugu rubrip
54	50	36.2	80	2	Q925H8 MOUSE		mus musculu
55	50	36.2	148	2	016122_TENMO		tenebrio mo
56	50	36.2	254	2	Q24NC6 DESHY		desulfitoba
57	50	36.2	264	2	Q3VWM4_PROAE		prosthecoch
58	50	36.2	291		POPD3 HUMAN		homo sapien
59				1	_		-
	50	36.2 36.2	291	2	Q5T3Y8_HUMAN		homo sapien
60	50		291	2	Q3BCU3_RAT		rattus norv
61	50	36.2	342	2	Q1XGM4_PSEPU	-	pseudomonas
62	50	36.2	413	2	Q2U6A4_ASPOR		aspergillus
63	50	36.2	526	2	Q231M5_TETTH		tetrahymena
64	50	36.2	528	2.			tetraodon n
65	50	36.2	739	2	Q865F2_RABIT		oryctolagus
66	50	36.2	854	2	Q4IPQ1_GIBZE		gibberella
67	49.5	35.9	110	2	Q7UWQ9_RHOBA		rhodopirell
68	49.5	35.9	121	2	Q7PQT7_ANOGA		anopheles g
69	49.5	35.9	157	2	Q7X094_9BACT		uncultured
70	49.5	35.9	202	2	Q7WAW6_BORPA		bordetella
71	49.5	35.9	397	2	Q3FAQ0_9BURK	Q3faq0	burkholderi
72	49.5	35.9	513	2	Q6F5D8_CAMSI	Q6f5d8	camellia si
						•	

•

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:59; Search time 166 Seconds

(without alignments)

148.996 Million cell updates/sec

Title: SEQ18-SEQ22

Perfect score: 132

Sequence: 1 CSSVTAWTTGCCSKIASMETGCG 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters: 3281787

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : UniProt_8.4:*

1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		ક					
Result		Query			•	•	
No.	Score	Match	Length	DB	ID	Descript	ion
1	56	42.4	58	2	Q33B75_ORYSA	Q33b75 o	ryza sativ
2	54	40.9	220	2	Q2U0X3_ASPOR	Q2u0x3 as	spergillus
3	54	40.9	254	2	Q24NC6_DESHY	Q24nc6 de	esulfitoba
4	54	40.9	545	2	Q57VH9_9TRYP	Q57vh9 ti	rypanosoma
5	53.5	40.5	484	2	Q4WE13_ASPFU	Q4we13 as	spergillus
6	53.5	40.5	569	2	Q4QGR6_LEIMA	Q4qgr6 le	eishmania
7	53	40.2	492	2	Q8RWI7_ARATH	Q8rwi7 a	rabidopsis
8	53	40.2	511	2	Q9LH69_ARATH	Q9lh69 ai	rabidopsis
9	52.5	39.8	1246	2	Q5BFY1_EMENI	Q5bfy1 er	mericella
10	52	39.4	597	2	Q7QSQ5_GIALA	Q7qsq5 g:	iardia lam
11	52	39.4	865	2	Q4SZU5_TETNG	Q4szu5 te	etraodon n
12	52	39.4	1251	2	Q9ZNV6_ORYSA	Q9znv6 o	ryza sativ
13	52	39.4	1251	2	Q9SSY0_ORYSA	Q9ssy0 o	ryza sativ
14	51.5	39.0	81	2	Q8N0U1_HUMAN	Q8n0u1 h	omo sapien
15	51.5	39.0	421	2	Q95V69_TETTH	Q95v69 te	etrahymena

16	51	38.6	99	2	Q5YF48_9VIRU		05vf48	rock bream	
17	51	38.6	214	2	Q6ZSQ4_HUMAN		_	homo sapien	
18	51	38.6	603	2	Q9YGH6 9NEOB			rana shqipe	
19	50.5	38.3	173	2	Q5DCF9 SCHJA			schistosoma	
20	50.5	38.3	596	2	Q3PCG7_PARDE			paracoccus	
21	50.5	38.3		2	Q8UW62_ORENI			oreochromis	
22	50	37.9	93	2	Q5MCZ1_SHEEP			ovis aries	
23	50	37.9	103	2	Q5MCZ2_SHEEP			ovis aries	
24	50	37.9	151	1	KRB2C SHEEP			ovis aries	
25	50	37.9	152	2	Q5MCZ8_SHEEP			ovis aries	
26	50	37.9	152	2	Q5MC28_SHEEP			ovis aries	
27	50	37.9	152	2	_	* .		ovis aries	•
28	50	37.9	152	2	Q7JFX1_SHEEP		_	ovis aries	
29	50	37.9	152	2	Q5MD03_SHEEP		-	ovis aries	
30	50	37.9	152	2					
31	50		171		Q7JFW9_SHEEP		-	ovis aries	•
32	50	37.9	177	1	KRB2A_SHEEP			ovis aries	
33	50	37.9		2	Q5XJ63_BRARE			brachydanio	
		37.9	182		Q29619_SHEEP			ovis aries	,
34	50 50	37.9	303	2	Q2UIW2_ASPOR			aspergillus	
35	50	37.9	348	2	Q26Q48_XANP2		_	xanthobacte	
36	50	37.9	483	2	Q4DW34_TRYCR			trypanosoma	
37	49	37.1	236	2	Q4RLR8_TETNG			tetraodon n	
3.8	49	37.1	286	2	Q8UVU5_SPAAU			sparus aura	
3'9	`49	37.1	459	2	Q4FZ07_LEIMA			leishmania	
40	49	37.1	491	1	K2M2_SHEEP			ovis aries	
41	.49	37.1	537	2	Q2HEN6_CHAGB			chaetomium	
42	49	37.1	734	2	Q9LNZ0_ARATH			arabidopsis	
43	49	37.1	1886	2	Q7X504_9LEPT			leptospira	
44	49	37.1	1889	2	Q7X2A1_LEPIN			leptospira	
45	49	37.1	1890	2	Q72V39_LEPIC			leptospira	
46	49	37.1	1891	2	Q8EZS3_LEPIN			leptospira	
47	49	37.1	2458	2	Q4CUV0_TRYCR			trypanosoma	
48	49	37.1	2731	• 2	Q4CV28_TRYCR			trypanosoma	
49	49	37.1	2771	. 2	Q9WTS7_MOUSE			mus musculu	
50	49	37.1	2796	2	Q3UHK6_MOUSE			mus musculu	
51	49	37.1	2825	2	070465_MOUSE			mus.musculu	
52	49	37.1	2833	2	Q3UH52_MOUSE			mus musculu	
53	48.5	36.7	304	2	Q2P8K4_XANOM		_	xanthomonas	
54	48.5	36.7	307	2	Q5H5W1_XANOR			xanthomonas	
55	48.5	36.7	376	2	Q59F39_HUMAN			homo sapien	
56	48.5	36.7	620	1	ITK_HUMAN			homo sapien	
57	48.5	36.7	620	2	Q32ML7_HUMAN			homo sapien	
58	48.5	36.7	2262	2	Q1XSM3_CYTJO			flavobacter	
59	48	36.4	83	2	Q5MCZ0_SHEEP			ovis aries	
60	48	36.4	126	2	Q5C0X9_SCHJA			schistosoma	
61	48	36.4	156	1	KRB2B_SHEEP	•		ovis aries	
62	48	36.4	162	2	Q7JFX2_SHEEP			ovis aries	
63	48	36.4	174	1	KRA15_HUMAN		-	homo sapien	
64	48	36.4	181	1	KRB2D_SHEEP			ovis aries	
65	48	36.4	264	2	Q9ALV8_RHOSH			rhodobacter	
66	48	36.4	281	2	Q5TX10_ANOGA			anopheles g	
67	48	36.4	315	2	Q561R8_RAT			rattus norv	
68	48	36.4	352	2	Q7ULA1_RHOBA	•		rhodopirell	
69	48	36.4	362	2	Q7QJL0_ANOGA			anopheles g	
70	48	36.4	367	2	Q1YTF4_9GAMM			marine gamm	
71	48	36.4	379	2	Q3HGC9_TRIER			trichodesmi	
72	48	36.4	413	2	Q2U2P6_ASPOR		Q2u2p6	aspergillus	

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:59; Search time 166 Seconds

(without alignments)

148.996 Million cell updates/sec

Title: SEQ22-SEQ18

Perfect score: 132

Sequence: 1 CSKIASMETGCCSSVTAWTTGCG 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters: 3281787

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : UniProt_8.4:*

1: uniprot_sprot:*
2: uniprot trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score	Query Match	Length	DB	ID	Description
1	55.5	42.0	2451	2	Q52R83_PHYCI	Q52r83 phytophthor
2	55	41.7	732	2	Q6BGR5_DEBHA	Q6bgr5 debaryomyce
3	55	41.7	780	2	Q5AK77_CANAL	Q5ak77 candida alb
4	54	40.9	393	2	Q3JAS4_NITOC	Q3jas4 nitrosococc
5	53	40.2	1491	2	Q4QJI2_LEIMA	Q4qji2 leishmania
6	52	39.4	67	2	Q9TSF0_SHEEP	.Q9tsf0 ovis aries
7	52	39.4	93	2	Q5MCZ1_SHEEP	Q5mczl ovis aries
8	52	39.4	103	2	Q5MCZ2_SHEEP	Q5mcz2 ovis aries
9	52	39.4	130	1	KRA3A_SHEEP	P02443 ovis aries
10	52	39.4	131	1	KRA3_SHEEP	P02441 ovis aries
11	52	39.4	131	2	Q9D3H4_MOUSE	Q9d3h4 mus musculu
12	52	39.4	132	· 1	KRA3_CAPHI	P02442 capra hircu
13	52	39.4	151	1	KRB2C_SHEEP	P02440 ovis aries
14	52	39.4	152	2	Q29620_SHEEP	Q29620 ovis aries
15	. 52	39.4	152	2	Q5MCZ8_SHEEP	Q5mcz8 ovis aries

		•	•			
•						
16	52	39.4	152	2	Q5MD00_SHEEP	Q5md00 ovis aries
17	52	39.4	152	2	Q7JFW8_SHEEP	Q7jfw8 ovis aries
18	52	39.4	152	2	Q7JFX1 SHEEP	Q7jfx1 ovis aries
19	. 52	39.4	152	2	Q5MD03 SHEEP	Q5md03 ovis aries
20	52	39.4	152	2	Q7JFW9_SHEEP	Q7jfw9 ovis aries
21	52	39.4	171	1	KRB2A SHEEP	P02438 ovis aries
22	52	39.4	182	2	Q29619 SHEEP	Q29619 ovis aries
23	52	39.4	474	2	049335_ARATH	049335 arabidopsis
24	52	39.4	480	2	Q8RWE3_ARATH	Q8rwe3 arabidopsis
25	52	39.4	922	2	Q2R1X1_ORYSA	Q2r1x1 oryza sativ
26	51	38.6		. 2	Q5MCZ0_SHEEP	Q5mcz0 ovis aries
27	51	38.6	156	1	KRB2B_SHEEP	P02439 ovis aries
28	51	38.6	162	2	Q7JFX2_SHEEP	Q7jfx2 ovis aries
29	51	38.6	181	1	KRB2D_SHEEP	P08131 ovis aries
30	51	38.6	248	2	Q6TXF2_RAT	Q6txf2 rattus norv
31	51	38.6	254	2	Q24NC6_DESHY	Q24nc6 desulfitoba
32	51	38.6	428	2	Q7S3C6_NEUCR	Q7s3c6 neurospora
33 34	51 51	38.6 38.6	569 691	2	Q4QGR6_LEIMA Q3W5R7 9ACTO	Q4qgr6 leishmania
35	51	38.6	1825	2 2	Q4LVD2 9BURK	Q3w5r7 frankia sp. Q4lvd2 burkholderi
36	51	38.6	1825	2	Q1BQ40_9BURK	Q1bq40 burkholderi
37	51	38.6	1848	2	Q4S113_TETNG	Q4s113 tetraodon n
38	50.5	38.3	360	2	Q86AK7_DICDI	Q86ak7 dictyosteli
39	50.5	38.3	360	2	Q556S1_DICDI	Q556s1 dictyosteli
40	50.5	38.3	846	2	Q31GH1_THICR	Q31ghl thiomicrosp
41	50	37.9	116	2	Q7TWQ5 MYCBO	Q7twq5 mycobacteri
42	50	37.9	237	2	O53144 MYCTU	O53144 mycobacteri
43	50	37.9	270	2	Q9ZUN5_ARATH	Q9zun5 arabidopsis
44	50	37.9	449	2	Q8SWZ1_DROME	Q8swzl drosophila
45	50	37.9	500	2	Q28XK8_DROPS	Q28xk8 drosophila
46	50	37.9	618	2	Q5Z3K8_NOCFA	Q5z3k8 nocardia fa
47	50	37.9	793	2	Q5N8W8_ORYSA	Q5n8w8 oryza sativ
48	50	37.9	817	2	Q4Q251_LEIMA	Q4q251 leishmania
49	50	37.9	1186	2		Q4cxc5 trypanosoma
50	50	37.9	1189	2	Q4DTX2_TRYCR	Q4dtx2 trypanosoma
51	50	37.9	1809	2	O85740_PSEAE	085740 pseudomonas
52	50	37.9	1809	2	Q9RFM7_PSEAE	Q9rfm7 pseudomonas
53 54	50 49.5	37.9 37.5	1809 257	2	Q9HWG4_PSEAE	Q9hwg4 pseudomonas
55	49.5	37.1	78	1 1	CJ095_HUMAN M6 LILHE	Q9h7t3 homo sapien Q40189 lilium henr
56	49	37.1	143	2	Q1D7P2_MYXXA	Q1d7p2 myxococcus
57	49	37.1	161	2	Q6R9B0_MAIZE	Q6r9b0 zea mays (m
58	49	37.1	227	2	Q4QSJ9_9LECA	Q4qsj9 pertusaria
59	49	37.1	249	2	Q5V9X6 MLVFR	Q5v9x6 friend muri
60	49	37.1	. 407	2	Q1NTQ7_9DELT	Q1ntq7 delta prote
61	49	371	431	2	Q5GVM4_XANOR	Q5gvm4 xanthomonas
62	49	37.1	569	2	Q2R345_ORYSA	Q2r345 oryza sativ
63	49	37.1	675	1	ENV_MLVF5	P03390 friend muri
64	49	37.1	676	2	Q7ZGR3_9GAMR	Q7zgr3 murine leuk
65	48.5	36.7	183	2	Q5JQU0_ORYSA	Q5jqu0 oryza sativ
66	48.5	36.7	370	2	Q2KJ85_BOVIN	Q2kj85 bos taurus
67 68	48.5	36.7	582	2	Q1E148_COCIM	Q1e148 coccidioide
68 69	48.5 48	36.7 36.4	3340 85	2 2	Q4QBB2_LEIMA	Q4qbb2 leishmania
70	48	36.4 36.4	96	2	Q9BYT5_HUMAN Q9BYU5_HUMAN	Q9byt5 homo sapien Q9byu5 homo sapien
71	48	36.4	120	2	Q38IX3_TENMO	Q38ix3 tenebrio mo
72	48	36.4	128	ī	KRA24 HUMAN	Q9byr9 homo sapien
					_	
						:
	•					·
						•

OM protein - protein search, using sw model

Run on: August 23', 2007, 15:29:59 ; Search time 166 Seconds

(without alignments)

148.996 Million cell updates/sec

Title: SEQ22-SEQ22

Perfect score: 126

Sequence: 1 CSKIASMETGCcskiasmetgcg 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters: 3281787

Minimum DB seg length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database :

UniProt 8.4:*

1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		6					
Result		Query					
No.	Score	Match	Length	DB	ID	Descri	ption
1	55	43.7	93	2	Q5MCZ1_SHEEP	Q5mcz1	ovis aries
2	55	43.7	103	2	Q5MCZ2_SHEEP	Q5mcz2	ovis aries
3	55	43.7	151	1	KRB2C_SHEEP	P02440	ovis aries
4	55	437	152	2	Q5MCZ8_SHEEP	Q5mcz8	ovis aries
5	55	43.7	152	2	Q5MD00_SHEEP	Q5md00	ovis aries
6	55	43.7	152	2	Q7JFW8_SHEEP	Q7jfw8	ovis aries
7	55	43.7	152	2	Q7JFX1_SHEEP	Q7jfx1	ovis aries
8	55	43.7	152	2	Q5MD03_SHEEP	Q5md03	ovis aries
. 9	55 [°]	43.7	152	2	Q7JFW9_SHEEP	Q7jfw9	ovis aries
10	55	43.7	171	1	KRB2A_SHEEP	P02438	ovis aries
11	55	43.7	182	2.	Q29619_SHEEP	Q29619	ovis aries
12	55	43.7	254	2	Q24NC6_DESHY	Q24nc6	desulfitoba
13	54	42.9	83	2	Q5MCZ0_SHEEP	Q5mcz0	ovis aries
14	54	42.9	156	1	KRB2B_SHEEP	P02439	ovis aries
15	54	42.9	162	2	Q7JFX2_SHEEP	Q7jfx2	ovis aries

					•			
16	54	42.9	174	1	KRA15_HUMAN		Q9bys1	homo sapien
17	54	42.9	181	1	KRB2D_SHEEP			ovis aries
18	54	42.9	545	2	Q57VH9_9TRYP		Q57vh9	trypanosoma
19	52.5	41.7	512	2	Q4SAY1_TETNG		Q4sayl	tetraodon n
20	52	41.3	272	2	Q3K4K1_PSEPF		Q3k4k1	pseudomonas
21	52	41.3	1848	2	Q4S113_TETNG			tetraodon n
22	51.5	40.9	1246	2	Q5BFY1_EMENI		_	emericella
23	51	40.5	152	2	Q29620_SHEEP			ovis aries
24	51	40.5	241	2	Q2KT15_9EURO			aspergillus
25 26	51 51	40.5	450	2	Q34VI7_9GAMM			alkalilimni
27	. 51	40.5 40.5	826 1056	2	Q5KTW4_ENTHI			entamoeba h
28	50.5	40.3	175	2	Q51CG0_ENTHI P90592_PLAVI	•		entamoeba h
29	50.5	40.1	347	2	Q75JE6 DICDI			plasmodium dictyosteli
30	50.5	40.1	347	2.	Q55AL3_DICDI			dictyosteli
31	50.5	40.1	384	2	Q8I208_PLAF7			plasmodium
32	50.5	40.1	1103	2	Q27721 PLAFA			plasmodium
33	50.5	40.1	1208	2	Q8I5T3_PLAF7			plasmodium
34	50.5	40.1	1228	2	Q27724_PLAFA			plasmodium
35	50.5	40.1	1264	2	Q9U445 PLAFA			plasmodium
36	50.5	40.1	1280	2	Q2H8G8 CHAGB			chaetomium
37	50.5	40.1	1437	2	Q4YWJ5_PLABE		_	plasmodium
38	50.5	40.1	1467	2	Q7RHL5_PLAYO			plasmodium
39	50.5	40.1	1528	2	Q5CKM3_CRYHO		Q5ckm3	cryptospori
40	50.5	40.1	1528	2	Q5CQZ5_CRYPV			cryptospori
41	50.5	40.1	1528		. Q95022_CRYPV		Q95022	cryptospori
42	50	39.7	105		Q9QBT8_9VIRU			potato roug
43	50	39.7	227	2	Q4QSJ9_9LECA			pertusaria
44	50	39.7	1081	2	Q1S472_MEDTR			medicago tr
45	50	39.7	2106	2	Q6RWD9_NECHA			nectria hae
46	49.5	39.3	. 1358	2	Q4UHQ8_THEAN		_	theileria a
47	49.5	39.3	1361	2	Q4N7V0_THEPA			theileria p
48 49	49 49	38.9 38.9	,119 172	2 _. 2	Q3EAM7_ARATH Q7JFX3_SHEEP		•	arabidopsis ovis aries
50	49	38.9	177	1	KRA11 HUMAN		_	homo sapien
51	49	38.9	177	1	KRA13_HUMAN			homo sapien
52	49	38.9	290	2	Q9UAN3_CAEEL	<i>:</i>		caenorhabdi
53	49	38.9	394	2	Q1NZ29_CAEEL			caenorhabdi
54	49	38.9	459	1	NHR11 CAEEL			caenorhabdi
55	. 49	38.9	459	2	Q5VKT4 CAEEL			caenorhabdi
56	49	38.9	477	2	Q511U9 ENTHI			entamoeba h
57	48.5	38.5	236	2	Q4RLR8_TETNG	•		tetraodon n
58	48.5	38.5	370	2	Q2KJ85_BOVIN		Q2kj85	bos taurus
59	48	38.1	67	2	Q9TSF0_SHEEP		Q9tsf0	ovis aries
60	48	38.1	130	1	KRA3A_SHEEP		P02443	ovis aries
61	48	38.1	131	1	KRA3_SHEEP			ovis aries
62	48	38.1	131	2	Q9D3H4_MOUSE			mus musculu
63	48	38.1	132	1	KRA3_CAPHI			capra hircu
64	48	38.1	203	2	Q6YR84_ONYPE			onion yello
65	48	38.1	227	2	Q4QSF6_9LECA		-	pertusaria
66 67	48	38.1	227	2.	Q4QSJ8_9LECA			pertusaria
67 68	48	38.1	227	2	Q4QSG0_9LECA			pertusaria
68 69	48 48	38.1 38.1	303 360	2	Q2UIW2_ASPOR			aspergillus
70	48 48	38.1	360	2 2	Q86AK7_DICDI Q556S1 DICDI			dictyosteli dictyosteli
71	48	38.1	413	2	Q2U2P6_ASPOR			aspergillus
72	48	38.1	449	2.	Q8SWZ1_DROME		_	drosophila
				_			x-5.121	
	•				•			•

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:58; Search time 10 Seconds

(without alignments)

210.761 Million cell updates/sec

Title: SEQ18-SEQ18

Perfect score: 138

Sequence: 1 CSSVTAWTTGcCSSVTAWTTGcg 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : PIR_80:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		*				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	57	41.3	38	2	S33484	hypothetical prote
2	52.5	38.0	539	2	149065	lymphoid-restricte
3	52	37.7	446	2	F84711	hypothetical prote
4	51	37.0	484	2	A40774	phosphocholine-bin
5	49	35.5	269	2	AG0642	4-amino-4-deoxycho
6	49	35.5	603	2	E84744	hypothetical prote
7	48.5	35.1	342	2	T29115	hypothetical prote
8	48.5	35.1	504	2	T04529	probable ammonium
9	48	34.8	47	2	T44626	hypothetical prote
10	47	34.1	152	1.	KRSHHC	keratin high-sulfu
11	47	34.1	152	2	I47111	high-sulfur wool m
12	47	34.1	152	2	I47109	high-sulfur wool m
13	47	34.1	152	2	I47108	high-sulfur wool m

14	47	34.1	152	2	I47112
15	47	34.1	172	1	KRSHHA
16	47	34.1	182	2	I47105
17	47	34.1	317	2	H70566
18	47	34.1	907	2	AB1885
19	46.5	33.7	129	2	JH0212
20	46.5	33.7	129	2	JH0212
21	46.5	33.7	912	2	G96830
22	46.5	33.7	55	2	E82522
23					
24	46	33.3 33.3	443	2	JC4088
	. 46		472	2	I57445 ·
25 26	46	33.3	829	2	T33283
	46	33.3	1418	2	T37264
27	46	33.3	1638	2	D87749
28	46	33.3	2488	2	T42739
29	46	33.3	3436	2	S55659
30	45.5	33.0	129	2	JC2144
31	45.5	33.0	424	2	T38271
32	45	32.6	110	2	S16496
33	45	32.6	156	1	KRSHHB
34	45	32.6	162	2	I47107
35	45	32.6	182	1	KRSHHD
36	45	32.6	284	2	A97203
37	. 45	32.6	587	2	A55368
38	45	32.6	952	2	S32954
39	45	32.6	1457	2	T14577
40	45	32.6	1809	2	T17403
41	45	32.6	1809	2	C83118
42	45	32.6	2090	2	T30075
43	45	32.6	2533	2	T28675
44	45	32.6	2533	2	T28674
45	45	32.6	3229	2	S27852
46	44.5	32.2	145	2	H87200
47	44.5	32.2	699	2	A36275
48	44	31.9	45	1	FFYZ
49	44	31.9	125	2	G84604
50	44	31.9	172	2	I47106
51	44	31.9	184	2	S74136
52	44	31.9	296	2	C81906
53	44	31.9	323	2	T51621
54	44	31.9	323	2	T51645
55	44	31.9	334	2	164220
56	44	31.9	393	2	JC5275
57	44	31.9	439	2	A36385
58	44	31.9	476	2	A83235
59	44	31.9	506	2	AF0757
60	44	31.9	509	2	E86273
61	44	31.9	567	2	A84748
62	44	31.9	647	2	B41288
63	44	31.9	661	2	F70751
64	44	31.9	676	2	T01381
65	44	31.9		2	
66	44	31.9	739 764	2	A41288 T07608
67	44	31.9		2	
68	44	31.9	810 1217		S65226
69	44	31.9	1647	1 2	EGMSMG T32934
					T32934
70	44	31.9	1820	2	A55494

high-sulfur wool m keratin high-sulfu high-sulfur wool m hypothetical prote hypothetical prote lysozyme (EC 3.2.1 lysozyme (EC 3.2.1 hypothetical prote hypothetical prote chorionic gonadotr alkaline phosphata hypothetical prote phospholipase C (E protein unc-73b [i guanine nucleotide tegument protein 6 lysozyme (EC 3.2.1 conserved hypothet hypothetical prote keratin high-sulfu high-sulfur wool m keratin high-sulfu 2-oxoacid ferredox transferred entry hypothetical prote protein kinase Yak pyochelin syntheta pyochelin syntheta hypothetical prote alpha-51D immobili alpha-51D-immobili probable cell-surf conserved hypothet long-chain-fatty-a fulvocin C - Myxoc hypothetical prote high-sulfur wool m latex proteinase i hypothetical prote myb-like protein [myb-related transc membrane protein h voltage-gated pota surface antigen se alkaline phosphata probable cobyric a hypothetical prote hypothetical prote vascular cell adhe hypothetical prote env protein - muri vascular cell adhe chloride channel p probable membrane epidermal growth f hypothetical prote latent transformin

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:58; Search time 10 Seconds

(without alignments)

210.761 Million cell updates/sec

Title: SEQ18-SEQ22

Perfect score: 132

Sequence: 1 CSSVTAWTTGCCSKIASMETGCG 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : PIR_80:*

1: pir1:* 2: pir2:*

3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		8				
Result		Query				•
No.	Score	Match	Length	$\mathbf{DB} \cdot$	ID	Description
			. -		- 	
1	50	37.9	152	1	KRSHHC	keratin high-sulfu
. 2	50	37.9	152	2	I47111	high-sulfur wool m
3	50	37.9	152	2	I47109	high-sulfur wool m
4	50	37.9	152	2	I47112	high-sulfur wool m
5	50	37.9	152	2 ·	T34649	hypothetical prote
6	50	37.9	172	1	KRSHHA	keratin high-sulfu
7	50	37.9	182	2	I47105	high-sulfur wool m
8	49	37.1	491	2	S05408	keratin, type II,
9	49	37.1	2825	2	T14271	Doc4 protein, stre
10	48.5	36.7	620	1	S33253	protein-tyrosine k
11	48	36.4	156	1	KŔSHHB	keratin high-sulfu
12	48	36∶4	162	2	I47107	high-sulfur wool m
13	48	36.4	182	1	KRSHHD	keratin high-sulfu

14	47	35.6	172	2	I47106			
15	47	35.6	257	2	I38025			
16	47	35.6	1103	2	JC4114			
17	47	35.6	1528	2	T37308			
18	46	34.8	38	2	S33484			
19	46	34.8	152	2	I47108	•		
20	46	34.8	349	2	I55601			
21	46	34.8	967	2	S66852			
22	46	34.8	976	2	G84587			
23	46	34.8	995	2	S50358			
24	46	34.8	1391	,2	T20406		٠.	
25	45.5	34.5	322	2	A71318			
26	45	34.1	810	2	S65226			
27	45	34.1	959	2	F87206			
28	45	34.1	1599	2	T16210			
29	45	34.1	2533	2	T28675			
30	45	34.1	2533	2	T28674			
31	44	33.3	64	· 2	F72392			
32	44	33.3	129	2	E70624			
33	44	33.3	246	2	D46482			
34	44	33.3	246	2	T01073			
35	44	33.3	314	2	B48149			
36	44	33.3	485	1	UHNA			
37	44	33.3	853	2	T04600			
38	44	33.3	853	2	B85429			
39	44	33.3	919	2	A42764		•	
40	44	33.3	1217	1	EGMSMG			
41	44	33.3	1457	2	T14577			
42	43.5	33.0	683	2	A82704	•		
43	43	32.6	90	2	PC2138			
44	43	32.6	94	2	T03285	•		
45	43	32.6	175	2	S37649			
46	43	32.6	177	.2	S37650			
47	43	32.6	266	2	F72851			•
48	43	32.6	422	2	S58173			
49	43	32.6	430	1	A24702			
50	43	32.6	567	2	T11653			
51	43	32.6	686	2	S30075			
52	43	32.6	1196	2	H85061			
53	42.5	32.2	216	2	S05575	•		
54	42.5	32.2	217	2	T47175			
55	42.5	32.2	475	2	G70861			
56	42.5	32.2	1360	2	T33922			
57	42.5	32.2	1408	2	S16148			
58	42.3	31.8	99	2	B25439			
59	42	31.8	178	2	JC2353	•		
60	42	31.8	178	2	JC2355			
61	42	31.8	178	2	I50601			
62	. 42	31.8	247	2	T40191			
63	42	31.8	408	2	AC1373			•
64	42	31.8	422	2	.S35197			
65	42	31.8	495	2	A70782			
66	. 42	31.8	504	2	T04529	•		
67	42	31.8	541	2	A87595			
68	42	31.8	554	2	S67452			
69	42	31.8	567	2	A84748			
70	42	31.8	576	2	A49933			
, 0	74	31.0	370	2	ハマノシンン			

keratin-like prote Ca2+-transporting ATPase homolog - C hypothetical prote high-sulfur wool m Na/taurocholate co hypothetical prote hypothetical prote hypothetical prote hypothetical prote conserved hypothet probable membrane conserved large me hypothetical prote alpha-51D immobili alpha-51D-immobili hypothetical prote truncated probable T-cell surface gly T cell surface gly epithelial glycopr angiotensin precur probable beta-gala beta-galactosidase Ca2+-transporting epidermal growth f protein kinase Yak 1,4-beta-cellobios hypothetical 90 pr anther-specific pr high-sulfur kerati high-sulfur kerati late expression fa ketoacyl synthase serine proteinase hypothetical prote ferric reductase (hypothetical prote sporozoite antigen hypothetical prote hypothetical prote hypothetical prote gene serrate prote Beejin protein - s gamma-crystallin M gamma-crystallin M gamma-crystallin M short chain dehydr conserved hypothet hypothetical prote probable monooxyge probable ammonium amine oxidase, fla hypothetical prote hypothetical prote proteinase SM tran

high-sulfur wool m

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:58; Search time 10 Seconds

(without alignments)

210.761 Million cell updates/sec

Title: SEQ22-SEQ18

Perfect score: 132

Sequence: 1 CSKIASMETGCCSSVTAWTTGCG 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : PIR_80:*

1: pir1:*
2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

			ъ				
F	Result		Query				
	No.	Score	Match	Length	DB	ID	Description
	1	52	39.4	130	1	KRSH3A	keratin high-sulfu
	2	52	39.4	131	1	KRGT3M	keratin high-sulfu
	3	52	39.4	131	1	KRSHA3	keratin high-sulfu
	4	52	39.4	132	1	KRGT3J	keratin high-sulfu
	5	52	39.4	152	1	KRSHHC	keratin high-sulfu
	6	52	39.4	152	2	I47111	high-sulfur wool m
	7	52	39.4	152	2	I47109	high-sulfur wool m
	8	52	39.4	152	2	I47108 .	high-sulfur wool m
	9	52	39.4	152	2	I47112	high-sulfur wool m
	10	52	39.4	172	1	KRSHHA	keratin high-sulfu
	11	. 52	39.4	182	2	I47105	high-sulfur wool m
	12	52	39.4	446	2	F84711	hypothetical prote
	13	51	38.6	156	1	KRSHHB	keratin high-sulfu

7.4		20 6	1.00	_	T47107
14	51	38.6	162	2	I47107
15	51	38.6	182	1	KRSHHD
16	50	37.9	270	2	E84578
17	50	37.9	1809	2	T17403
18	50	37.9	1809	2	·C83118
19	49	37.1	676	2	T01381
20	48	36.4	175	2	S37649
21	48	36.4	676	2	S70395
	47.5				
2.2		36.0	349	2	I55601
23	47	35.6	591	2	· I48141
24	46.5	35.2	276	2	T52349
25	46	34.8	172	2	I47106
26	. 46	34.8	177	2	S37650
27	46	34.8	233	2	T25295
28	46	34.8	237	2	H82568
29	46	34.8	256	2	F86463
30	46	34.8	342	2	T29115
31	46	34.8	421	2	T02135
32	46	34.8	506	2	AF0757
33	46	34.8	550	· 2	T37325
34	46	34.8	605	2	T31690
35	46	34.8	764	2	T07608
36	46	34.8	1192	2	T08609
37	46	34.8	3491	2	T43231
38	45.5	34.5	424	2	T38271
39	45.5	34.5	1360	2	T33922
40	45	34.1	222	2	D84520
41	45	34.1	284	2	A97203
42	_. 45	34.1	439	2	B75487
43	45	34.1	810	2	S65226
44	45	34.1	1558	2	C89114
45	45	34.1	2167	2	
					T34395
46	44.5	33.7	2871	2	A55567
47	44.5	33.7	2871	2	A55624
48	44.5	33.7	3002	2	A47221
49	44	33.3	74	2	E90799
50	44	33.3	125	2	G84604
51	44	33.3	296	2	C81906
52	44	33.3	323	2	T51621
53	. 44	33.3	323	2	T51645
54	44	33:3	455	2	B71335
55	44	33.3	472	2	I57445
56	44	33.3	567	2	A84748
57	43.5	33.0	329	2	T43012
58	43.5	33.0	340	2	H95349
59	43.5	33.0	507	2	T50398
60	43	32.6	169	1	S18946
61	43	32.6	227	2	C84431
62	. 43	32.6	353	2	D69105
63	43	32.6	433	2	S37790
64	43	32.6	596	2	E87686
65	43	32.6	676	1	VCMVPV
66	43	32.6	829	2	T33283
67	43	32.6	1418	2	T37264
68	43	32.6	1786	1	MMHUB1
69	43	32.6	2907	2	A57278
70	43	32.6	2918	2	A54105
. •		52.0	-210	-	

high-sulfur wool m keratin high-sulfu probable senescenc pyochelin syntheta pyochelin syntheta env protein - muri high-sulfur kerati env polyprotein -Na/taurocholate co acrogranin - guine F-box protein FBL2 high-sulfur wool m high-sulfur kerati hypothetical prote purine nucleoside hypothetical prote hypothetical prote hypothetical prote probable cobyric a wingless protein r hypothetical prote chloride channel p hypothetical prote probable 6-deoxyer conserved hypothet hypothetical prote hypothetical prote 2-oxoacid ferredox ammonium transport probable membrane protein C37C3.6a [hypothetical prote fibrillin I - bovi fibrillin-1 precur fibrillin 1 precur hypothetical prote hypothetical prote hypothetical prote myb-like protein [myb-related transc probable purine-bi alkaline phosphata hypothetical prote conserved hypothet alcohol dehydrogen hypothetical serin ultra high-sulfur hypothetical prote coenzyme PQQ synth probable serine/th succinate dehydrog env polyprotein pr hypothetical prote phospholipase C (E laminin beta-1 cha fibrillin-2 precur fibrillin-2 precur

OM protein - protein search, using sw model

Run on: August 23, 2007, 15:29:58; Search time 10 Seconds

(without alignments)

210.761 Million cell updates/sec

Title: SEQ22-SEQ22

Perfect score: 126

Sequence: 1 CSKIASMETGCcskiasmetgcg 23

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 segs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 300 summaries

Database : PIR 80:*

1: pirl:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		፟ቔ				
Result		Query				
No.	Score	Match	Length	DB	ID	Description
1	55	43.7	152	1	KRSHHC	keratin high-sulfu
2	55	43.7	152	2	I47111	high-sulfur wool m
3	55	43.7	152	2	I47109	high-sulfur wool m
4	55	43.7	152	2	I47112	high-sulfur wool m
5	55	43.7	172	1	KRSHHA	keratin high-sulfu
6	55	43.7	182	2	I47105	high-sulfur wool m
7	54	42.9	156	1	KRSHHB	keratin high-sulfu
8	54	42.9	162	2	I47107	high-sulfur wool m
9	54	42.9	182	. 1	KRSHHD	keratin high-sulfu
10	51	40.5	152	2	I47108	high-sulfur wool m
11	50.5	40.1	1103	2	JC4114	Ca2+-transporting
12	50.5	40.1	1528	2	T37308	ATPase homolog - C
13	49	38.9	172	2	147106	high-sulfur wool m

	4.0	20.0		_	
14	49	38.9	175	2	S37649
15	49	38.9	177	2	S37650
16	49	38.9	282	2	T27554
17	49	38.9	290	2	T43351
18	48	38.1	99	2	B25439
19	48	38.1	130	1	KRSH3A
20	48	38.1	131	1	KRGT3M
21	48	38.1	131	1	KRSHA3
22	48	38.1	132	1	KRGT3J
23	48	38.1	1558	2	C89114
24	48	38.1	2167	2	T34395
25	47.5	37.7	349	2	I55601
26	47	37.3	270	2	E84578
27	47	37.3	491	2	S05408
28	46.5	36.9	2825	2	T14271
29	46	36.5	463	2	G83175
30	46	36.5	557	1	S76051
31	46	36.5	810	2	S65226
32	46	36.5	3491	2	T43231
33	45.5	36.1	459	2	B36145
34	45	35.7	188	2	JC6547
35	45	35.7	257	2	I38025
36	45	35.7	339	2	AG1910
37	45	35.7	620	1	S33253
38	45	35.7	1104	2	JH0181
39	44.5	35.3	591	2	I48141
40	44.5	35.3	919	2	A42764
41	44	34.9	64	. 2	F72392
42	44	34.9	222	2	D84520
43	44	34.9	421	2	T02135
44	44	34.9	1391	2	T20406
45	43.5	34.5	137	2	F69411
46	43.5	34.5	632	2	T04732
47	43.5	34.5	1047	2	A59246
48	43.5	34.5	1599	2	T16210
49	43	34.1	246	2	D46482
50	43	34.1	246	2	T01073
51	43	34.1	267	2	T25767
52	43	34.1	344	2	S76268
53	43	34.1	567	2	T11653
54	43	34.1	781	2	F86457
55	43	34.1	1260	2	T04440
56	42.5	33.7	60	2	S31723
	42.5				
57		33.7	60	2	B27490
58	42.5	33.7	60	2 .	JC2420
59	42.5	33.7	61	2	JC1449
60	42.5	33.7	126	2	I46489
61	42.5	33.7	450	2	H82495
62	42.5	33.7	475	2	G70861
63	42.5	33.7	534	2	E84590
64	42.5	33.7	559	2	A57474
65 ·	42.5	33.7	946	2	G71617
66	42.5	33.7	1820	2	S71853
67	42	33.3	90	2	PC2138
68	42	33.3	139	2	T09878
69	42	33.3	152	2	T34649
70	42	33.3	223	2	B38346
		· -		-	

high-sulfur kerati high-sulfur kerati hypothetical prote nuclear receptor N Beejin protein - s keratin high-sulfu keratin high-sulfu keratin high-sulfu keratin high-sulfu protein C37C3.6a [hypothetical prote Na/taurocholate co probable senescenc keratin, type II, Doc4 protein, stre probable metallo-o hypothetical prote probable membrane probable 6-deoxyer cobG protein - Pse high sulfur protei keratin-like prote periplasmic solute protein-tyrosine k nitrite reductase acrogranin - guine Ca2+-transporting hypothetical prote hypothetical prote hypothetical prote hypothetical prote hypothetical prote hypothetical prote HIRA protein - fru hypothetical prote T-cell surface gly T cell surface gly hypothetical prote probable UDP-3-0-[hypothetical prote unknown protein, 3 hypothetical prote metallothionein metallothionein B metallothionein metallothionein A cysteine-rich hair C4-dicarboxylate t hypothetical prote hypothetical prote extracellular matr SERA antigen/papai genome polyprotein hypothetical 90 pr albumin 2S storage hypothetical prote ultra-high-sulfur